

***Remarks***

Upon entry of the foregoing amendments, claims 2, 6-9, 14, 17, 20, 37-40, 69 and 71-75 are pending in the application, with claim 2 being the independent claim. Claims 2, 6-9, 14, 14 20, 37, and 71 have been amended and claim 1 is cancelled.

Based on the following remarks, Applicants respectfully request that the Examiner reconsider and withdraw the outstanding rejections.

**Claim Objections**

Claims 1, 2, and 39 were objected to because recitation of “amino acid positions<sub>s</sub>,” rendered the claim unclear. Claim 1 has been cancelled and claim 2 has been amended, thus rendering the claim objection moot.

Claim 38 and 39 were objected to because the claims were duplicate. Applicants, would like to indicate that claim 38 recites “dideoxyribonucleoside triphosphates,” while claim 39 recites “deoxyribonucleoside triphosphates.” Accordingly, claims 38 and 39 are not duplicate claims and the objection should be withdrawn.

**Rejections Under 35 U.S.C. § 112, First and Second Paragraph**

Claim 2 was rejected under 35 U.S.C. § 112, second paragraph, as it was unclear as to how claim 2 was different from claim 1.

Claim 1 has been cancelled and thus the rejection of claim 2 is rendered moot.

Claims 1, 2, 6-9, 14, 17, 20, 37-40, 69 and 71-75 were rejected under 35 U.S.C. § 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventors, at the time the application was filed, had possession of the claimed invention.

The Office Action states that “claims to those Pol I Tne DNA polymerase mutants which are ‘double mutants’ comprising either mutations at ‘Arg722 and Lys726’ or ‘Arg722 and Phe730’ are not supported by the specification at the time of filing and is considered new matter.”

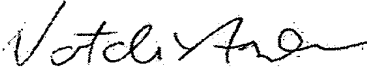
Applicants traverse this rejection. Support for Pol I Tne DNA polymerase double mutants comprising either mutations at Arg722 and Lys726 or at Arg722 and Phe730 may be found throughout the specification. For example, the table on page 21 recites a Tne DNA polymerase having the Arg722 and Lys726 double mutation ; example 14 on page 46 recites a Tne DNA polymerase having the Arg722 and Phe730 double mutation; and example 17 on page 17 exemplifies a Tne DNA polymerase having the Arg722 and Phe730 double mutation. Accordingly, the specification fully supports these claims, and is fully compliant with the written description requirement of 35 U.S.C. § 112, first paragraph.

*Conclusion*

All of the stated grounds of rejection have been properly traversed or rendered moot. Applicants therefore respectfully request that the Examiner reconsider and withdraw all presently outstanding objections and rejections. Applicants believe that a full and complete reply has been made to the outstanding Office Action and, as such, the present application is in condition for allowance.

Prompt and favorable consideration of this Amendment and Reply is respectfully requested.

Respectfully submitted,



Natalie A. Davis  
Patent Agent  
Invitrogen Corporation  
Registration. No. 53,849

Date: April 17, 2006